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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,401	02/25/2002	Lynne Marie Evans	013.0226.01	6885

22895 7590 12/08/2006

CASCADIA INTELLECTUAL PROPERTY  
500 UNION STREET  
SUITE 1005  
SEATTLE, WA 98101

EXAMINER

BRIER, JEFFERY A

ART UNIT PAPER NUMBER

2628

DATE MAILED: 12/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/084,401		EVANS, LYNNE MARIE	
	<b>Examiner</b>		<b>Art Unit</b>	
	Jeffery A. Brier		2628	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 September 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,5,8-11,14-18,21-24,27-33,35-41 and 43-56 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5,8-11,14-18,21-24,27-33,35-41 and 43-56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Response to Amendment***

1. The amendment filed on 9/21/2006 has been entered. The amendment to the specification overcomes the objection to the drawings set forth in the office action mailed on 6/16/2006.

***Response to Arguments***

2. Applicant's arguments filed 9/21/2006 concerning the 101 rejection have been fully considered but they are not persuasive. The "multi-dimensional data" and "clusters set into a two-dimensional visual display area" claimed to be stored in the memory do not appear to be functional descriptive material. Functional descriptive material is normally computer instructions that cause a computer to perform steps. The claimed "multi-dimensional data" and "clusters set into a two-dimensional visual display area" are not computer instructions that cause a computer to perform steps but instead are data which appear to be abstract entities and non-functional. Adding to the independent claims the claimed "memory" at for example lines 4 and 9 of claim 1 is not sufficient to make the claims statutory because clusters are abstract entities unlike the anti-aliased pixel illumination intensity data to be displayed on a display means of *In re Alappat*, 31 USPQ2d 1545, 1555, 1557 (Fed. Cir. 1994) and unlike the dollar amounts of *State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 47 USPQ2d 1596, 1601 (Fed. Cir. 1998) and the unlike the condition of a patient's heart of *Arrhythmia Research Technology Inc. v. Corazonix Corp.*, 22 USPQ2d 1033 (Fed. Cir. 1992). *Alappat*

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discussed claim 15 at page 1555 and discussed their rationale at page 1557. State

Street discussed the dollar amounts rationale at page 1601.

Alappat's claim 15 discussion:

When independent claim 15 is construed in accordance with Section 112 Para. 6, claim 15 reads as follows, the subject matter in brackets representing the structure which Alappat discloses in his specification as corresponding to the respective means language recited in the claims:

A rasterizer [a "machine"] for converting vector list data representing sample magnitudes of an input waveform into anti-aliased pixel illumination intensity data to be displayed on a display means comprising:

- (a) [an arithmetic logic circuit configured to perform an absolute value function, or an equivalent thereof] for determining the vertical distance between the endpoints of each of the vectors in the data list;
- (b) [an arithmetic logic circuit configured to perform an absolute value function, or an equivalent thereof] for determining the elevation of a row of pixels that is spanned by the vector;
- (c) [a pair of barrel shifters, or equivalents thereof] for normalizing the vertical distance and elevation; and
- (d) [a read only memory (ROM) containing illumination intensity data, or an equivalent thereof] for outputting illumination intensity data as a predetermined function of the normalized vertical distance and elevation.

Alappat's rationale discussion at page 1557:

(b)

Given the foregoing, the proper inquiry in dealing with the so called mathematical subject matter exception to Section 101 alleged herein is to see whether the claimed subject matter as a whole is a disembodied mathematical concept, whether categorized as a mathematical formula, mathematical equation, mathematical algorithm, or the like, which in essence represents nothing more than a "law of nature," "natural phenomenon," or "abstract idea." If so, Diehr precludes the patenting of that subject matter. That is not the case here.

Although many, or arguably even all, <sup>22</sup> of the means elements recited in claim 15 represent circuitry elements that perform mathematical calculations, which is essentially true of all digital electrical circuits, the claimed invention as a whole is directed to a combination of interrelated elements which combine to form a machine for converting discrete waveform data samples into anti-aliased pixel illumination intensity data to be displayed on a display means. <sup>23</sup> This is not a disembodied mathematical concept which may be characterized as an "abstract

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idea," but rather a specific machine to produce a useful, concrete, and tangible result.

State Street's rationale discussion at page 1601:

Today, we hold that the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it produces "a useful, concrete and tangible result"--a final share price momentarily fixed for recording and reporting purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.

Thus, in this application, amending the claims to store abstract entities does not produce a useful, concrete, and tangible result.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1, 2, 5, 8-11, 14-18, 21-24, 27-33, 35-41, and 43-56 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Independent claim 1 was amended to claim at lines 3-4 "a concept space to visualize document content that is stored as clusters as multi-dimensional data in a

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memory based on extracted terms” and to claim at lines 8-9 “a placement module to place the clusters set into a two-dimensional visual display area of the memory” while the specification at page 6 lines 13-14 states “The cluster display system 11 includes a processor, memory and persistent storage, such as provided by a storage device 16, within which are stored clusters 17 representing visualized multi-dimensional data.”.

The “memory” added to the claims is also discussed at page 1 lines 18-20 and page 7 lines 11-18. The specification does not convey that document content is visualized by storing “multi-dimensional data in a memory” and does not convey the claimed multi-dimensional data stored in the memory is “based on extracted terms” and does not convey both the “multi-dimensional data” and the “clusters set into a two-dimensional visual display area” are stored in the same memory. Independent claims 14, 28, and 36 were amended similar to claim 1 and the specification also fails to convey these claims for the same reasons given for claim 1.

Independent claim 28 was further amended at lines 18-19 to claim “an anchor submodule to choose a selected cluster from the two-dimensional visual display area” which is claimed to be stored in the memory at lines 9-10 while the specification does not convey selecting a cluster from the “two-dimensional visual display area of the memory”.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 1, 2, 5, 8-11, 14-18, 21-24, 27-33, 35-41, and 43-56 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 14, 15, 18, 21-24, 27, and 49-52:

Independent claim 14 was amended at line 5 by deleting "concept space" while applicant did not amend at line 6 "the concept space". Thus, "the concept space" now lacks antecedent basis in the claim. Dependent claims 15, 18, 21-24, 27, and 49-52 do not correct this issue present in their parent claim.

Claims 1, 2, 5, 8-11, 14-18, 21-24, 27-33, 35-41, and 43-56:

Independent claim 1 was amended to claim at lines 8-9 "a placement module to place the clusters set into a two-dimensional visual display area of the memory" and independent claim 14 was amended to claim at lines 9-10 "placing the clusters set into a two-dimensional visual display area of the memory". It is not clear from the specification and claims what is meant by "set" since this portion of the claim is concerned with "memory" and is not clear if the clusters are being stored in the memory by the modules comprising the placement module and the steps forming the placing step or if they are "set" in the visual display area without being placed by the placement module and placing step. It is also not clear what is meant by "placing" and "to place" since this is different than storing the clusters in the two-dimensional visual display area of the memory. Thus, the metes and bounds of these claims are unclear as well as their dependent claims.

Independent claim 28 was amended to claim at lines 9-10 "a placement module to place the cluster in a two-dimensional visual display area of the memory" and independent claim 36 was amended to claim at lines 9-10 "placing the clusters in a two-dimensional visual display area of the memory". It is not clear what is meant by "placing" and "to place" since this is different than storing the clusters in the two-dimensional visual display area of the memory. Thus, the metes and bounds of these claims are unclear as well as their dependent claims.

### ***Claim Rejections - 35 USC § 101***

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 1, 2, 5, 8-11, 14, 15, 18, 21-24, 27-33, 35-41, and 43-56 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

In view the "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility published on the USPTO website on October 26, 2005,

[http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101\\_20051026.pdf](http://www.uspto.gov/web/offices/pac/dapp/opla/preognotice/guidelines101_20051026.pdf)

and published in the OG 22Nov2005

<http://www.uspto.gov/web/offices/com/sol/og/2005/week47/patgupa.htm>) and MPEP

2106 Rev 5, August 2006.

The following 35 USC 101 rejection is now required.



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9. This application is directed to a useful, concrete, and tangible result, however, these claims are not. These claims are directed to data manipulation without producing a useful and tangible result. Independent claims 1, 14, 28, and 36 claim placing the clusters set into a two-dimensional visual display area of the memory but does not actually display clusters, thus, the claims are directed to abstract data processing of the clusters. Even claims 48 and 52 do not actually claim displaying the clusters, thus, they still claim abstract data processing of the clusters. The specification at page 7 lines 8-10 discusses "Finally, the display and visualize module 20 performs the actual display of the clusters 17 via the display 14 responsive to commands from the input devices, including keyboard 12 and pointing device 13." which appears to be a useful and tangible practical result. *State Street Bank & Trust Co. v. Signature Financial Group Inc.* (CA FC) 47 USPQ2d 1596, 1603 (7/23/1998). *AT&T Corp. v. Excel Communications Inc.* (CA FC) 50 USPQ2d 1447. On page 1603 first paragraph the CAFC wrote in *State Street*:

Under *Benson*, this may have been a sufficient indicium of nonstatutory subject matter. However, after *Diehr* and *Alappat*, the mere fact that a claimed invention involves inputting numbers, calculating numbers, outputting numbers, and storing numbers, in and of itself, would not render it nonstatutory subject matter, unless, of course, its operation does not produce a "useful, concrete and tangible result." *Alappat*, 33 F.3d at 1544, 31 USPQ2d at 1557. 7

On page 1603 paragraph labeled [4] the CAFC wrote:

[4] The question of whether a claim encompasses statutory subject matter should not focus on which of the four categories of subject matter a claim is directed to 9 -- process, machine, manufacture, or composition of matter--

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but rather on the essential characteristics of the subject matter, in particular, its practical utility. Section 101 specifies that statutory subject matter must also satisfy the other "conditions and requirements" of Title 35, including novelty, nonobviousness, and adequacy of disclosure and notice. See *In re Warmerdam*, 33 F.3d 1354, 1359, 31 USPQ2d 1754, 1757-58 (Fed. Cir. 1994).

10. A prior art rejection cannot be made because the metes and bounds of the claims are not definite and because the specification does not support the claims. Thus, an indication of allowability would be premature. *In re Steele*, 305 F.2d 859, 134 USPQ 292 (CCPA 1962) (it is improper to rely on speculative assumptions regarding the meaning of a claim and then base a rejection under 35 U.S.C. 103 on these assumptions).

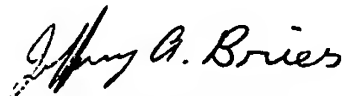
11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffery A Brier whose telephone number is (571) 272-7656. The examiner can normally be reached on M-F from 7:00 to 3:30. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi, can be reached at (571) 272-7664. The fax phone Number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jeffery A Brier  
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Division 2628